



Southern Regional Office (SRO)
400 W. Congress, Suite 433, Tucson, AZ 85701

**DRAFT Minutes of the
Shannon Road/El Camino del Cerro
Water Quality Assurance Revolving Fund (WQARF)
Community Advisory Board (CAB) Meeting – 19th Meeting**

May 12, 2004, 6:00 p.m. - 8:00 p.m.
Nanini Library, 7300 N. Shannon Road, Tucson, Arizona

W-10000.6.6.2

CAB Members Present: Susan Bjerke, Gary Burchard, James Eigel, Terri Hutts, Chris North, Al Pesqueira, Eleanor Towne

CAB Members Absent: Fran LaSala, Bob Ornelas, Gary Pitman

ADEQ Staff Present: Michael Romero, Project Manager; Melissa Hayes, Community Involvement Coordinator

Members of the Public Present: Wally Wilson, Michael Block, David Eaker, Chris Hill, Pete Schlegel, Glenna Rader

The meeting began at 6:05 p.m.

1. Call to Order/Introductions

Al Pesqueira, CAB co-chair, welcomed members and conducted introductions.

2. Approval of Minutes from 2/04/04

Gary Burchard motioned to approve the minutes; Terri Hutts seconded. All CAB members were in favor; none were opposed. Suzy Bjerke and Al Pesqueira abstained, since they were not at the last meeting.

3. Final Nominations/Vote on CAB Co-Chairs for Next Term

Nominated Co-Chairs: Al Pesqueira, Gary Pitman

Al Pesqueira accepted his nomination as co-chair; Gary Pitman had said that if anyone else wanted to be co-chair, he would let them be nominated instead of him. Al Pesqueira asked if there were any additional nominations. Al Pesqueira nominated Terri Hutts, and Suzy Bjerke seconded, but Terri Hutts said that she was not interested. There were no further nominations. The CAB voted on the co-chairs one at a time. All CAB members were in favor and none were opposed to Al Pesqueira as co-chair for the next term. All CAB members were in favor and none were opposed to Gary Pitman as co-chair for the next term. Al Pesqueira and Gary Pitman were renominated as co-chairs.

4. Presentation on Challenges of South Shannon Treatment System/Q&A – Chris Hill, Deputy Manager, Metro Water District, Tucson, AZ

Chris Hill discussed the South Shannon Well Treatment System, which became operational in July 1997. He explained the technology used in the treatment system, the cost and the removal capacity. He said that the system pumps water and sends it through a bubble aeration system to release PCE and TCE from the water, then the water goes to a storage tank, then a centrifugal pump sends the water from the storage tank to the main reservoir at the South Shannon well. The system was designed to remove concentrations of PCE at 10 parts per billion (ppb) with 90% removal, but it was found that it actually could remove 95%.

He then discussed the challenges affecting the treatment system. He said that volatile organic compound (VOC) levels have increased and are now above the treatment system removal capacity. He said that well flow rates have been reduced to half, costs have increased, and the annual production and contribution of the South Shannon well to the total Metro Water supply has decreased. He said that because of decreased flows from the South Shannon well, it is not known if the well is still capturing VOCs and preventing them from migrating past the well.

He said that there has been breakthrough of VOCs past the treatment system previously, so Metro Water performed further testing and analysis, and reduced the input to the treatment system. He said that there were a percentage of detections until 1999, at which time Metro Water shut down the South Shannon well to change the bubbler-type diffusers in the aeration system because they were plugging up with calcium. Detections of VOCs then decreased, but rose again once the PCE levels started to increase. PCE levels in the South Shannon well have steadily increased, and the pumping rate has been reduced significantly since 1999. He said that if there is a detection of VOCs after the treatment system, Metro Water's agreement with ADEQ is to analyze samples with a quick turnaround time, then have two weeks of no detections in the treatment system before going back to monthly sampling. On April 7, 2004, there was a detection of PCE at 7.3 ppb in the reservoir, which is above the Maximum Contaminant Level (MCL) of 5.0 ppb; concentrations of PCE after aeration at the point of entry into the distribution system were 5.6 ppb. Metro Water immediately shut down the treatment system, since PCE broke through a barrier into the reservoir, which is the last safety area before reaching the well.

He said that Metro Water has had an agreement with ADEQ since February 2000, for reimbursement from ADEQ for operation and maintenance costs for the South Shannon well. He said that lab costs have increased because of the level of detections and the quick turnaround times to process the samples; other costs have also increased.

He said that detections of PCE in the reservoir have rarely occurred, and any detections are reported in the annual Consumer Confidence Report sent to customers by Metro Water since 1998. Customers affected by the recent exceedance of the MCL were mailed information, and were informed of the decision to turn off the treatment system. He said that the annual average of PCE is being looked at by ADEQ to determine whether Metro Water will be required to notify the entire customer base. He said that it is important to note that the MCL for PCE and TCE set by the Environmental Protection Agency indicates a risk level for an adult drinking water over a lifetime. He showed the trends of PCE levels since operation of the well, and said that the increased level of PCE was unanticipated.

ADEQ and Metro Water have been discussing the treatment system, which will be upgraded with granular activated carbon (GAC) technology to treat the PCE and TCE. GAC is more reliable, but if vinyl chloride

shows up in the water, it would call for discussion on how to design an even more effective system. The GAC treatment will eliminate air emissions and noise when the aeration system is not used. The current aeration system will stay in place in case vinyl chloride shows up, as a pre-treatment to the GAC system. Mike Block, Metro Water, added that the new system would also have vapor recovery from the aerator for vinyl chloride, which would allow for even lower air emissions. The system is estimated to be online by the end of the year, with a cost of approximately \$400,000-\$500,000; ADEQ is funding 80% of the design and Metro Water 20%. Mike Block said that Metro Water currently has an annual contract with ADEQ for operation and maintenance costs of \$35,000/year; he said that costs could go up with the new system.

CAB members asked questions about the treatment system. Metro Water explained that when the carbon in the GAC units is used up, the manufacturer pressurizes the vessels, and use water to exchange out the old carbon with the new. The carbon is sent to a regeneration plant, where VOCs are captured and recycled or incinerated, and the carbon can be reused.

Chris Hill said that the issue with the South Shannon well is production of water versus containment of contamination. He said that Metro Water wants to run the South Shannon well as much as possible to protect their capital and capacity investment, but if trends continue, they will have to look at whether they will use it as a source of potable water, or reclaimed or recycled water. Pete Schlegel said the South Shannon well is important to the Metro Water system, and he is concerned about the time that the well is shut off. He said that from his experience, ADEQ is more than likely to be behind schedule than ahead of schedule. He asked if Metro Water is planning to increase pumping at the DeConcini well, which would pull the flow even more to the northeast; Chris Hill said that Metro Water wants to manage the flow coming from the DeConcini well and will not increase it; Metro Water recently installed new wells that help make up for the loss of production from the South Shannon well, and looping helps bring water from other areas to serve the area. Monitor wells were also installed upgradient and downgradient, which will be monitored closely for any changes while the South Shannon well is not running. He said that ADEQ has worked very well with Metro Water and has made this a priority.

Michael Romero said that ADEQ may increase the frequency of monitoring in the area, now that the South Shannon well is shut down. Mike Block said that the design may incorporate the ability to add onto the facility, in case ADEQ uses the South Shannon well as a regional well to contain a larger area of contamination. Gary Burchard added that groundwater moves very slowly, typically only a few feet a year. Melissa Hayes added that other WQARF sites use GAC, with extra canisters added on in case concentrations increase. Michael Romero said that the design of the treatment system has been looked at, and construction may be completed by the end of fiscal year 2005.

5. Site Investigation Update/Q&A – Michael Romero, ADEQ

Michael Romero said that ADEQ has not determined the rate of groundwater flow in the area. He said that ADEQ and Metro Water were performing pump and aquifer tests, which will help determine the rate of groundwater flow and what is necessary to capture the flow. He said that no contamination has been found in the sentinel wells. He explained the construction differences between the sentinel wells and the production wells. He said that South Shannon is screened over a very large interval, so the concentrations represent the large screened interval. The sentinel wells are screened over smaller intervals, so if PCE migrated, it would not necessarily show up in the same concentrations because it would likely be diluted. He said that the El Camino del Cerro Landfill and the former E.C. Winter facility are confirmed sources of

contamination in the area, and ADEQ suspects that the former AMRI Oil facility is a source area to groundwater contamination also.

Michael Romero said that ADEQ will be drilling the W-37 well, which will give a better idea of what interval the contamination is intersecting the South Shannon well. The well will be installed on the north side of River Road, near the intersection of Shannon Road and River Road. The well should be drilled in the beginning of June, pending access approval. He said that the well will be drilled with the roto sonic method, and soil and groundwater samples will be collected. CAB members asked questions about groundwater flow direction. Michael Romero said that the groundwater flow rates have changed over time, and a lot of the wells are dry because of the drought. Water levels in some of the wells that have existed since the early to mid-1990s have dropped below the pumps. ADEQ is trying to lower the pumps, so samples and water levels can be taken.

He said that ADEQ has been trying to get access to the southern portion of the former AMRI Oil facility, where the former Wrecksperts facility was. ADEQ's final proposal to the property owner is being reviewed by the Attorney General's Office. Once ADEQ hears from the Attorney General's Office, they will send it to the owner, and if that does not get ADEQ anywhere as far as access, ADEQ will take the next step, which may be to issue an order to get access. Pete Schlegel asked if people are living in the mobile homes in the area; Michael Romero said that they are in Western Trailer Park, but ADEQ has done a lot of work in Western Trailer Park and determined that there are no health risks posed from the contamination. ADEQ did soil vapor flux sampling to determine if there are any soil vapors coming out of the ground affecting indoor air quality in the mobile homes, and there were no measurable results. He said that lead sampling was also done, and there was a small area in an uninhabited lot where there is lead above the soil remediation levels, but it is at a depth to where there is no risk, since no one is living there. He said that ADEQ has the property on the list for a possible excavation, but want to tie it into the Wrecksperts work to make it more efficient. He said that if the land use changes for the vacant lot, the risk could change.

Terri Hutts asked whether people are living on the former Wrecksperts property; Michael Romero said that the owners have leased the property, and it is not known if people are living there. CAB and audience members discussed the items being stored on the property, and the codes for the property. Michael Romero said that ADEQ performed a soil removal action on the former Wrecksperts property in the past, to remove oil and lead-contaminated soil. He said that ADEQ's concern is whether there is still an area of contaminated vapor in the soil, continuing to contribute to the groundwater contamination.

He discussed the plume maps for the sites showing VOC concentrations, based on well depths. He said that the historic wells installed by Pima County were installed at shallow depths. There is also a plume map showing middle interval wells, but there are only a couple deep wells, so a plume map cannot be drawn based on that.

He said that there were detections in the Palm Vista well in the fourth quarter of 2003, so ADEQ did another round of sampling, and had detections just at detection limits. He said that the levels were not enough to trigger more monitoring, but since ADEQ already was monitoring the well quarterly, it will continue doing so. He said that the only contaminant detected above the detection limits was Freon, which was at levels close to the MCL. Freon is found in all the wells that are contaminated, and moves quickly.

He said that the Palm Vista well is a deep well that has had detections of Freon before. He said that the recent detection could be related to the drought.

Michael Romero explained that after the W-24 well, contamination does not show up in the shallow interval, so something may be driving the contamination down. He said that the Arizona Department of Water Resources did a comprehensive well inventory in the area, which did not provide any reason for this change, such as a conduit. It could be a source that got deeper, or an influence from the river. He mentioned that the construction of the monitor wells allows for extraction of the entire soil core, which provides for an accurate record of the geology of the area.

He said that the flux box monitoring measured vapors coming out of the ground to see if they would affect indoor air and risk. He said that the flux box sampling at the former Wrecksperts property determined that there is nothing at the former AMRI facility, but at the former E.C. Winter property, there were some detections above the ambient air quality guidelines. He said that there is no regulatory program that governs this, but ADEQ is proactive and determining if there is anything, so it can be mitigated through a soil vapor extraction system. Modeling did not indicate whether soil vapor extraction would be effective. He said that ADEQ wants to look at the soil vapors at the former Wrecksperts property, to determine whether an early response action would be needed. He said that the ultimate goal is to mitigate the groundwater contamination. ADEQ will continue to monitor the E.C. Winter property.

6. CAB Discussion of Letters Regarding Access to Wrecksperts Property

Terri Hutts said that the CAB's intent in possibly writing a letter was to make something happen in getting access to the former Wrecksperts property. She said that she is content that something is happening, and dialogue is taking place. Michael Romero said that this is ADEQ's final offer to the property owners, and it is being reviewed by the Attorney General's Office for completeness and legal accuracy. Gary Burchard said that he felt that it would be appropriate if ADEQ goes to the next step, for the CAB to lend their support at that time. Michael Romero said that when the CAB first proposed the letter, the property owner would not even talk to ADEQ, and now there is a dialogue. Terri Hutts asked if Metro Water needs a letter from the CAB regarding the urgency in getting their treatment system upgrade going as soon as possible. Gary Burchard said he didn't think so, as long as things are going as they are. He said that the only situation where there might be a need for the CAB's support would be if the overall WQARF program wanted to allocate funding to another WQARF Site instead.

7. Call to the Public

No one wished to comment.

8. CAB Outreach Discussion

Melissa Hayes said that this agenda item is a reminder of the CAB's duty to share information about the WQARF Sites with the public. She said that it was brought to her attention that the site factsheets need updating. Ellie Towne said that she talks about the WQARF Sites at Flowing Wells Neighborhood Association/Community Coalition meetings. Melissa Hayes said that she can provide copies of site handouts for anyone who would like to distribute them.

9. Other Administrative Business

Chris North said that this would be his last meeting because he would be moving; he would submit his resignation. Melissa Hayes said that ADEQ appreciated his service on the CAB. Chris North said that he will tell his replacement at his school about the CAB.

10. Next Meeting Date/Agenda Discussion

The next CAB meeting will be held on Wednesday, September 29, 2004 at the Nanini Library, large meeting room, 7300 N. Shannon Rd., Tucson, from 6:00 p.m. to 8:00 p.m. [Note: The CAB meeting was originally scheduled for 8/4/04, but was rescheduled due to staff conflicts.] Call Melissa Hayes, ADEQ Community Involvement Coordinator, for meeting details and proposed agenda. The CAB discussed the agenda for the next meeting. Terri Hutts asked if the CAB could learn more about Pima County's portion of the El Camino del Cerro WQARF site. ADEQ will work with Pima County to determine who will present on this topic. Gary Burchard asked that the final Arizona Department of Water Resources (ADWR) well inventory be on the next agenda. Michael Romero said that this was done as a project for the WQARF program, with WQARF money, but was also useful for ADWR's database. Chris North submitted his letter of resignation from the CAB, so there will be a vote to accept his resignation at the next meeting.

Pete Schlegel asked ADEQ is looking at whether the rising water table could have a negative effect by encroaching the bottom of landfills and creating additional problems. Michael Romero said that generally, contaminants from a landfill get into the groundwater through leaching from recharge. He said that all landfills after the Resource Conservation and Recovery Act (RCRA) was implemented had to be regulated and have liners, so the problems we see now are from historic practices. He said that this area has actually had water level decreases caused by drought. Dave Eaker said that Pima County still monitors the landfill.

11. Adjournment

The meeting was adjourned at 7:30 p.m.

This meeting was recorded on cassette tapes as a record of the proceedings. To listen to the tape, or for additional documents mentioned in these minutes, contact ADEQ's Southern Regional Office, Community Involvement Office, 520/628-6712.

Minutes prepared by: Melissa Hayes 9/7/04
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